

What is claimed is:

1. Method for cutting of nonmetallic materials by a direction of a laser beam from the pulse laser, focusing of laser radiation on a surface of a sample or in it, the formations of defect in a point of focus, and then application of mechanical effort to a surface of a sample distinguished by the fact of themes, that it is used pulse laser radiation 10-100 ps duration of a pulse and energy in a pulse, sufficient for formation of breakdown in a zone of focus, with length of a wave laying in the field of a transparency of a material, then determine the size of defect and form defects in points of a sample from each other at the on distance determined 50 % overlapping of defects on 50 % up to double distance between defects, at the same time form a beam so that density of energy on a surface did not exceed a threshold of destruction of a semiconductor covering.

2. Method for cutting of transparent nonmetallic materials according to claim 1, wherein points of formation of defects are along a direction of polarization of laser radiation.

3. Method for cutting of transparent nonmetallic materials according to claim 1, wherein focusing a beam are focused on a back wall of a sample without a covering, then or simultaneously with first focusing additionally focus one or several times laser radiation in sample perpendicularly surfaces and in parallel to the first layer of defects.

4. The device for cutting of transparent nonmetallic materials containing laser system, optical-mechanical system of a direction and focusing of radiation, mechanism of mutual moving of a sample and focal stain, TV-control device, block of management and control, distinguished by the fact themes, that the system for a direction and focusing of radiation is executed with a lens consisting of 2 and more of lenses with different focal lengths.

5. The device according to claim 4, wherein the system for a direction and focusing of radiation is executed with a lens from double reflection of a crystal.